P300

operating instructions

≡la Pavoni

Dal 1905 macchine per caffè

INDEX

ELECTRIC CIRCUIT LEGEND

F	anti-interference filter
TR	transformer 230Vac / 24 – 20 Vac 170VA
I.P.	door safety switch
CX	safety thermostat 145°C
R.C.	boiler heating element 230V 1200W
R.G.	espresso group heating element
V	ventilator
CV	flowmeter
PS	soluble pump
PC	espresso pump
MG	espresso group motor
EV-A	hot water Electro valve
MS5	doser motor soluble 5
MS4	doser motor soluble 4
MS3	doser motor soluble 3
MS2	doser motor soluble 2
MS1	doser motor soluble 1
MZ	"sugar in cup" doser motor
EM-G	to the obliterator coil (24Vdc)
M-CB	cup turret motor
M-SB	cup releaser motor
EM-C	coffee releaser coil
EM-P	spoon releaser coil
E-S4/5	soluble 4 & 5 electro valve
F-S4/5	soluble 4 & 5 whipper
E-S1/2	soluble 1 & 2 electro valve
F-S1/2	soluble 1 & 2 whipper
E-S3	soluble 3 electro valve
F-S3	soluble 3 whipper
EV-C	espresso coffee electro valve
M-M	grinder motor
S	boiler temperature probe
S-PB	"cup" position sensor
G.R.	espresso group "normal" position sensor
GET	"token" microswitch
S-B	"cup" sensor
MB	cup-releaser motor
S-PE	"supply" position sensor
S-PZ	"sugar" position sensor
M.B.	cup-releaser switch
D.C.	coffee-doser switch
V.A.	lack water switch (float)
G.E.	espresso group "supply" position micro switch

ELECTRIC DIAGRAM
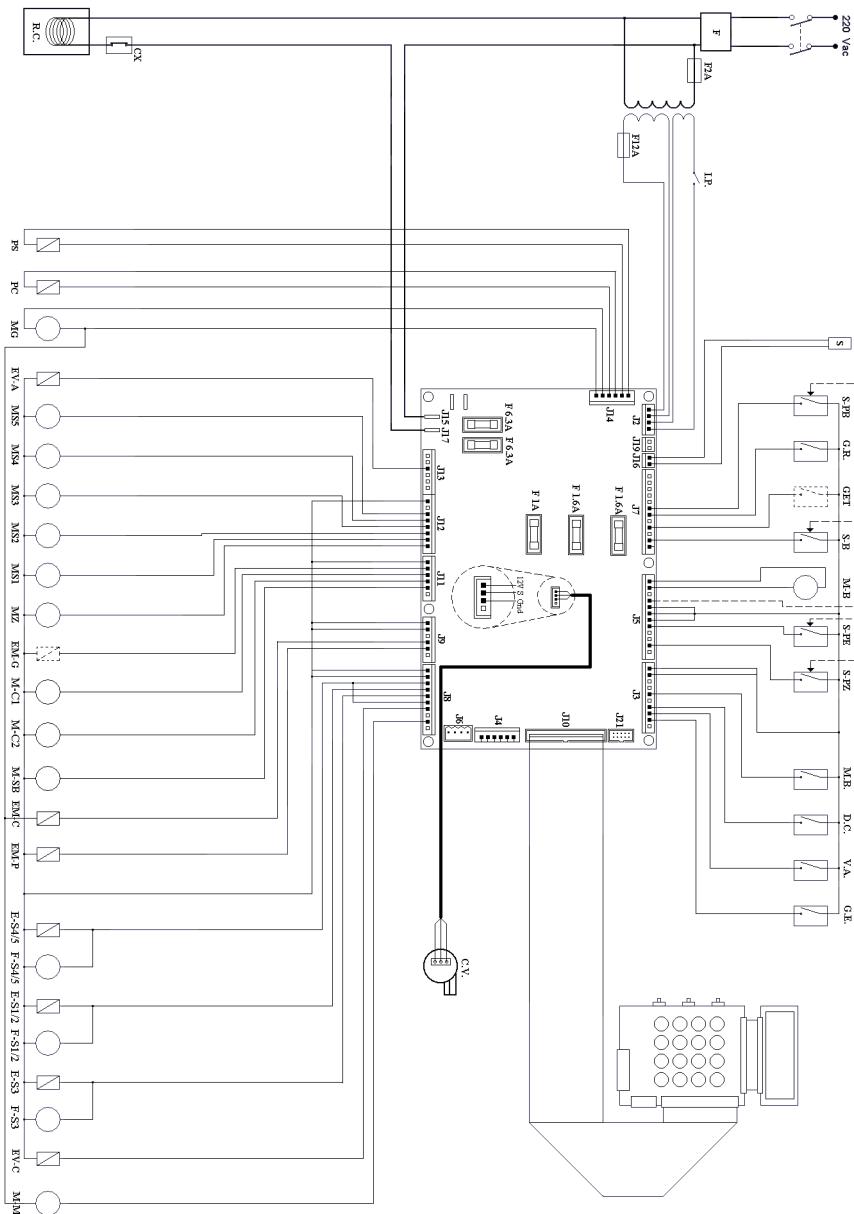
TECHNICAL CHARACTERISTICS

Dimensions: Height 162 cm
           Width 48.5 cm
           Depth 55 cm

Weight: 90 Kg

Voltage supply: 230 Vac. 50 Hz or 120 Vac. 60Hz on request

Absorbed power: 1,6 KW

Selections: n°14 for F300 model
            n°28 for F306 model
            Possibility to program up to 40 selections.

Payment system: predisposed for

- Obliterator / token system 24Vdc
- Parallel selector 12Vac or 24Vac
- Executive / MDB system

Water connection: inside tank 15lit.
                From water system with male fitting of ¾" (optional)

Cups capacity: up to 300

Stirrers capacity: up to 300

Optional:

- connection kit to the water net
- double pump
- beniamino filter (anti-limestone filter)
- whipper for powder container position 3 (mod. Plus)

INSTALLATION

Before proceeding to the operations of installation, maintenance and reparation of the machine, read the manual carefully, where there is contained the necessary information for the correct use of the machine.

Install the machine in a dry and not dusty place.

Put to level the machine through the regulation of the feet.

ELECTRIC CONNECTION

Before connecting the machine to the power, follow the following instructions:

o   check that the electric line has a suitable course for the absorbed power (1600W)
o   check that the voltage corresponds to the data indicated in the plate on the left side of the machine.
o   The power has to have the efficient earth connection..
o   In case of substitution of the cable of feeding, use only original cables (ask to the manufacturer the special cable with type M connection)

The manufacturer will not take on any responsibility if these instructions are not respected.

All the electric devices in the machine work with a 24Vdc produced by the transformer except the boiler heating element and the same transformer, that use a tension of 230Vac or 120Vac on request.

The main light switch is a bipolar type and it supplies all the machine.

There are two fuses, 2A and 12A, which respectively protect the transformer and the circuit in low voltage 24Vdc.
In case you have to extract the breakdown fuses, unscrew the hood container.

The 20Vac low-power circuit is interrupted by a safety button, situated on the chassis, that cuts the current to the electronic board when the door is open.

Extracting the button, it is possible to reestablish the feeding with the door open (by only technical staff).

HYDRAULIC CIRCUIT
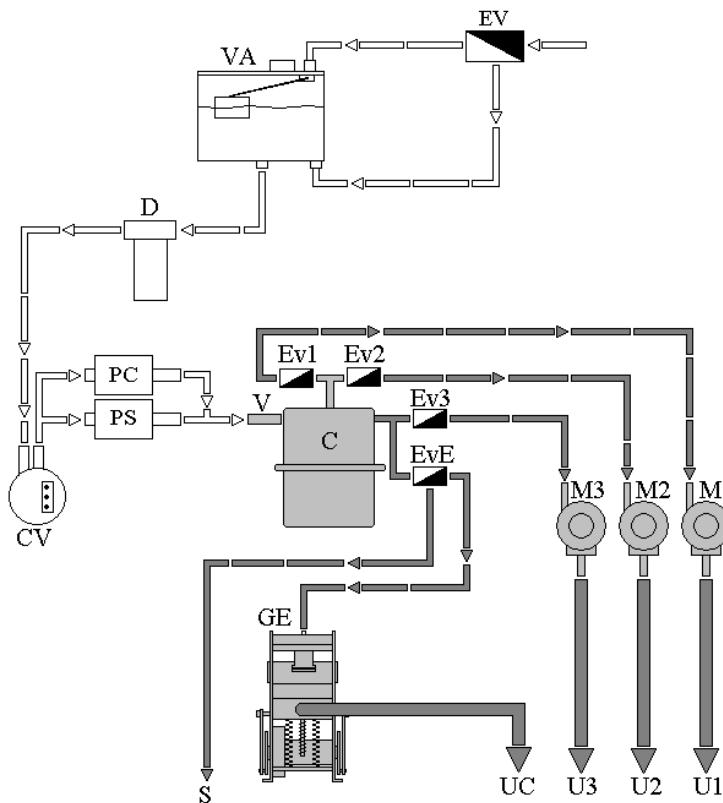
Legend:

EV	Inlet electrovalve	UC	espresso group outlet
D	anti-limestone filtrer (optional)	U1	mixer 1 outlet
VA	water reservoir (optional)	U2	mixer 2 outlet
CV	flowmeter	U3	mixer 3 outlet
PS	soluble pump		
PC	espresso pump		
V	one-way valve		
C	boiler		
EV1	soluble 1 & 2 electrovalve		
EV2	soluble 3 and hot water electrovalve		
EV3	soluble 4 & 5 electrovalve		
EvE	espresso electrovalve		
M1	soluble 1 & 2 mixing group		
M2	soluble 3 mixing group		
M3	soluble 4 & 5 mixing group		
GE	espresso group		
S	espresso waste electrovalve		

TROUBLESHOOTING GUIDE

The machine is provided with a program of self-diagnosis, that allows to visualize on the display the messages of breakdown or machine stopped :

Message	Description	Probable cause
ERR. CUP-RELEAS.	during the cup-releasing, the board has not received the change of state of the cup-releaser micro switch.	Fuses, cup-releaser motor, cup-releaser micro switch, electronic board.
ERROR ARM 0	The electronic board has not received the "sugar position" of the cup -arm signal by the relative sensor on the cup-station board.	Fuses, cup blocked in the cup-arm, cup-arm motor, position sensor, electronic board.
ERROR ARM 1	The electronic board has not received the "cup position" of the cup -arm signal by the relative sensor on the cup-station board.	Fuses, cup blocked in the cup-arm, cup-arm motor, position sensor, electronic board.
ERROR ARM 2	The electronic board has not received the "supply position" of the cup -arm signal by the relative sensor on the cup-station board.	Fuses, cup blocked in the cup-arm, cup-arm motor, position sensor, electronic board.
ERROR GROUP 1	the coffee-group has not reached the "supply position" given by its right micro switch.	Fuses, group right micro switch, group motor, electronic board.
ERROR GROUP 0	the coffee-group has not reached the "normal position" given by its left micro switch.	Fuses, group left micro switch, group motor, electronic board.
ERR. COFFEE FLOW	During espresso supplying, the board has not received signals from the flowmeter.	Fuses, too finer coffee, coffee pump, coffee electro valve, flowmeter, electronic board.
ERR. SOLUB.FLOW	During soluble supplying, the board has not received signals from the flowmeter.	Fuses, solubile pump, solubile electro valve, flowmeter, electronic board.
ERROR GRINDER 1	During the coffee grinding, the board has not received the signal given by the doser-switch in the maximum time of 25 seconds.	Too fine coffee, fuses, doser micro-switch, grinder motor, grinder blocked by something hard, electronic board.
LACK OF CUPS	The board doesn't receive the signal from the cups sensor.	Lack of cups, cups sensor, electronic board.
LACK OF WATER	The board doesn't receive the signal from the float.	Lack of water, float, water container micro switch, electronic board.
ERROR BOILER 1	The board has not received the programmed value temperature from the boiler probe in the maximum time of 15 minutes.	Safety thermostat, boiler heating element, electronic board.
EMPTY GROUNDS!	The coffee grounds decounter has reached the programmed value.	Empty the grounds and execute the quick function nr.5.
ERROR EXECUTIVE	At the power-on, the board has not received signals by the payment payment, Executive or MDB, programmed.	Payement system, cables, electronic board..

INSIDE TANK

The machine is already set for the inside tank working.

WATER SYSTEM CONNECTION (OPTIONAL)

- disconnect the silicon pipe, which comes from the tank, from the limestone filter.
- connect the silicon pipe coming from the water resevoir to the filter.
- connect the connector with the two grey wires coming from the water reservoir to the connector with two grey wires of the machine.
- disconnect the wires of the float and connect the black and green wires coming from the water reservoir to the black and green wires into the machine.
- check that the net-system pressure doesn't overcome the 2 bars, otherwise it is necessary to install a pressure reductor.
- Connect the water inlet tube to the inlet electrovalve with a ¾ " fitting.

PRODUCTS LOADING

Fill up the containers of the products as the labels on them.

CUPS LOADING

Rotate the cup container towards left and open the cover slightly lifting it.
Load the cup columns, assuring that the two columns are jammed by the magnets.
Close the cover and insert again the container.

STIRRERS LOADING

Load the container and position the stirrer's weight above all of them to facilitate
also the expulsion of the last ones.

PAYMENT SYSTEM CONNECTION

- VALIDATOR 12V: connect to the keyboard connector COIN12V (see figure).
- VALIDATOR 24V: connect to the keyboard connector COIN12V (see figure).
- EXECUTIVE / MDB: connect to the relative cables, positioned near the keyboard.
- SINGLE IMPULSE SYSTEM (obliterator, token system, etc.): connect to the 6 pins connector in the back side of the machine.

After the electric connection, it is necessary to set the used system into the program (see page 16).
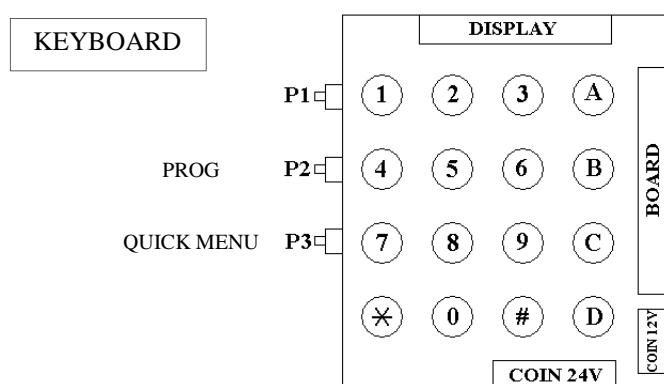
QUICK FUNCTIONS

In this section, it is possible to perform some of the most useful functions by the operator.

To access press the button "QUICK MENU" of the keyboard.

On display you will see "QUICK MENU"

Pushing the relative number, you will execute these following functions::

1. *mixers washing:* a washing for each mixing group is executed.

2. *boiler 1 temperature visualization*: you see for 2 seconds the present temperature of the boiler 1.

3. *boiler 2 temperature visualization:* you see for 2 seconds the present temperature of the boiler 2.

4. *free mode working:* setting the "free mode" working. After 1 minute of inactivity the machine comes back in regular working.

5. *grounds counter reset:* the coffee grounds counter is reset to the value programmed on the "level 2 menu". The message "empty grounds !" will disappear and the machine will continue to work.

6. *filter counter reset:* the filter counter is reset to the value programmed in "level 2" menu. After that, the symbol "*" will disappear.

7. *espresso group motor test:* you can test the espresso group movement. Pushing the button 7, you will supply the motor, while keeping pressed it, the motor will move to the next position, "supply position" or "normal position".

8. *coffee decounter reset:* the coffee decounter is reset to the value programmed.

9. *chocolate decounter reset***:** the chocolate decounter is reset to the value programmed**.**

0. *total counter visualization:* the display will show the total counter of the machine for 3 seconds. It is not possible to reset this counter.

Movements nr 38 and 39 (Decounter coffee and chocolate)

The movements nr38 (decounter coffee) and nr39 (decounter chocolate), where inserted, decrease the relative decounter by a unit.
To set the value of the decounter, it is enough to change it in one selection which contains it, automatically it will be modified also in all the other selections.

If the parameter "type" is set=0, every time it is reset, see at page 22, the decounter restart to the set value, while if the parameter "type" is set=1, at every reset, the decounter value will be the sum of the set value plus the value before the reset.

Example with value= 100 and type=0
If the decounter is reset when its value was 20, the new decounter value is 100.

Example with value=100 and type=1
If the decounter is reset when its value was 20, the new decounter value is 120 (100+20).

In both of cases, when the decounter reaches 0, the display will show "Machine ready coffee finished" or "Machine ready choco finished" or "Machine ready No coffee&choco" and the machine will disable the selections which contains the relative decounter (movements 38 and 39).

OPERATING

After have followed all the instructions of installation, it is possible to turn on the machine through the light switch situated on the rear side.

At the switch on of the machine, it appears on display for a brief time the message of the version software, after that it will begin the heating of the boiler that will be visualized with the message "**HEATING**" that will be replaced, to reached temperature, by the flowing message ". ….**INSERT THE CREDIT AND SELECT YOUR DRINK**…".

Note: it is advisable to execute a manual washing immediately after the switch on, to load with more facility the hydraulic circuit and the boiler.
To do this, make reference to the "QUICK FUNCTIONS" at page 27.

Drink choice

The choice of the drink happens through the composition of a numerical code that corresponds to the desired drink.
The codes and the relative associations can be varied in base to the demands of the consumer.

Sugar choice

The choice happens after the selection of the drink and within 5 seconds, through the keys A and B; during the choice on display it will appear "CHOOSE SUGAR" that it will disappear once selected.

The functions of the 2 keys and the supply by default of the sugar depend on the setting of the parameter " Default Bitter Drink" described at page 20.

The quantities of the sugar are programmable for every single drink, while the extra-sugar quantity is 50% more.

Change of language

It is possible to change the language of visualization among those present in the version.
Pressing the key D, the language changes and it will be hold on for a maximum of 10 sec, after this time it will return to be that programmed by default.
This function is useful in those places where the users speak different languages (airports, stations, etc)

PROGRAMMING

There are 2 levels of program: <u>a frequent menu</u> and <u>a main menu</u>.

The frequent menu is useful to the operator to regulate the dosing of the drinks, to set the prices, to notice the counters and to visualize the events of the machine.

The main menu is useful to the technical sector of the management and is for setting the various parameters of the machine.

The buttons used in the programming are the followings:

A (+) has the function of increase or advancement in the program
B (-) has the function of diminution or withdrawal in the program
C (esc) has the function of exit
D (enter) has the function of confirmation

FREQUENT MENU

The access to this menu happens through the key PROG of the keyboard.
On display the following menus will appear:

- **SET DRINKS**

- **SET PRICES**

- **COUNTERS & AMOUNTS**

- **EVENTS**

To scroll, use the buttons A (+) or B (-); to enter in the selected menu press D (enter) while to exit press C (esc).

26	TIME SOLUB.5	The machine makes the soluble 5 cycle with time control.
27	UNHOOK CUP	The cup-arm goes in "cup" position and the cup-dispenser (turrets type) releases a cup".
28	SEARCH CUP	A cup searching (turrets type) happens.
29	ON TIME WATER	A hot water quantity (in seconds) is supplied.
30	SOLUBLE 6	The machine makes the soluble 6 with volumetric control.
31	TIME SOLUBLE 6	The machine makes the soluble 6 with time control.
32	LIOF. SOLUBLE 4	The machine gives the soluble 4 (coffee) powder (used for light kinds of powder).
33	LIOF. SOL4 SUG V.	The machine gives a dose of sugar into the soluble 4 mixing group and a quantity of water with volumetric control.
34	LIOF. SOL4 SUG T.	The machine gives a dose of sugar into the soluble 4 mixing group and a quantity of water with time control.
35	LIOF. SOLUBLE 5	The machine gives the soluble 5 (coffee) powder (used for light kinds of powder).
36	LIOF. SOL5 SUG V.	The machine gives a dose of sugar into the soluble 5 mixing group and a quantity of water with volumetric control.
37	LIOF. SOL5 SUG T.	The machine gives a dose of sugar into the soluble 5 mixing group and a quantity of water with time control.
38	COFFEE DECOUNTER	the coffee decounter decreases by one unit.
39	CHOCO DECOUNTER	the chocolate decounter decreases by one unit.
40	J13-6 ON	not used
41	J13-6 OFF	not used
42	J13-5 ON	not used
43	J13-5 OFF	not used
44	J13-6 ON	not used
45	J13-6 OFF	not used
46	GRINDER 1	the grinder 1 produces a dose of coffee with time control
47	GRINDER 2	the grinder 2 produces a dose of coffee with time control

Note: some movements could not work, depending on the model of the machine.
Consult the manufacturer in case you want to modify the sequence of movements.

It is possible to eliminate, modify or insert movements or to change its regulations where possible, for example the dosing of the products.

- to move the selection cursor movement use A and B
- to insert a new movement in the selected position press "2"
- to eliminate the selected movement press "1"
- to modify the selected movement press" 3"
- to modify the regulations (es: dosing) to press D

To modify the name of the drink use the keys:

" 1" to withdraw with the cursor on the character to modify
" 2" to advance with the cursor on the character to modify
"A" or "B" to modify the character

The movements are the following:

01	CUP	the cup-arm goes in "cup" position and the cup-dispenser (single type) releases a cup.
02	SUPPLY POSITION	the cup-arm goes in "supply" position.
03	SUGAR POSITION	the cup-arm goes in "sugar" position.
04	GRINDER 1	the grinder 1 produces a dose of coffee.
05	SOLUB 1 VOLUM.	The machine makes the soluble 1 (milk) cycle with volumetric control (in cc).
06	SOLUB.2 VOLUM.	The machine makes the soluble 2 (chocolate) cycle with volumetric control (in cc).
07	SOLUB.3 VOLUM.	The machine makes the soluble 3 (tea) cycle with volumetric control (in cc).
08	SUGAR	the machine gives a dose of sugar in the cup.
09	ESPRESSO 1	the coffee dose is released into the infusion chamber and the espresso supplying is executed.
10	SPOON	The machine gives a spoon.
11	CUP POSITION	A cup searching happens.
12	START POS. GROUP	The espresso group is moved to the normal position.
13	SOLUB.4 VOLUM.	The machine makes the soluble 4 (coffee) cycle with volumetric control (in cc)..
14	SOLUB.5 VOLUM.	The machine makes the soluble 5 cycle with volumetric control (in cc)..
15	HOT WATER	A hot water quantity (in cc) is supplied.
16	GRINDER 2	the grinder 2 produces a dose of coffee.
17	PAUSE TYPE 1	A pause is executed.
18	PAUSE TYPE 2	A pause is executed.
19	PAUSE TYPE 3	A pause is executed.
20	PAUSE TYPE 4	A pause is executed.
21	ESPRESSO 2	the coffee dose is released into the infusion chamber and the espresso 2 supplying is executed.
22	TIME SOLUB.1	The machine makes the soluble 1 (milk) cycle with time control.
23	TIME SOLUB.2	The machine makes the soluble 2 (chocolate) cycle with time control.
24	TIME SOLUB.3	The machine makes the soluble 3 (tea) cycle with time control.
25	TIME SOLUB.4	The machine makes the soluble 4 (coffee) cycle with time control.

SET DRINKS

Entering the program through D, you will see the sequence of the existing drink codes.

```
11-12-13-14-15-1
Sel.11
```

The flashing cursor points out the drink code selected, to move it use the keys A to advance or B to withdraw; contemporarily to the movement of the cursor, in the underlying line, the name of the selection will be visualized related to the drink code.

To modify the parameters of the drink code press D.
A sequence of numbers will be visualized that correspond to the doses of the selection, to the line price (P) and to the menu of the name of the drink (MS).

```
08-09-P1-MS
DOSE SUGAR
```

As in precedence, the cursor points out the dosing code selected, therefore to move it use the keys A or B; on the underlying line the description of the selected dosing will appear.
To modify its value, after having selected it to press D.

```
DOSE SUGAR
15
```

Use the numerical keys from 0 to 9 to insert the desired value and to confirm pressing D.
To go out of the menu press C.

```
SAVE CHANGES ?
YES=1          NO=3
```

Press" 1" to confirm the changes or" 3" to cancel it.

To modify the name of the drink use the keys:

" 1" to withdraw with the cursor on the character
" 2" to advance with the cursor on the character
"A" or" B" to modify the character

Example: change the water quantity of the coffee of the selection " long coffee " n°13

- Enter in " set drinks " with D
- Position the cursor on the code drink n°13 with the key A
- Enter with D the sequence dosing
- Position the cursor on the dosing n°9 with A
- Press D to enter the change value
- Use the numerical keys to set the desired value and press D to confirm it
- Press C to go out of the menu "dosing drink"
- Press " 1" to confirm the changes
- Press C to go out of the menu" set drinks"

SET PRICES

In this menu it is possible to set the value of 9 lines prices, to which the selections are linked.

To select the line price to set, use the keys A or B, enter the change of the value pressing D and set the value with the numerical keys, after that press D to confirm.

If all the prices values are 0, the machine will go automatically in "free mode".

SET DRINKS

Premise: every selection or drink is composed by a sequence of movements which correspond to a single operation of the machine.
The single movements are only performed after the correct event of the previous movement, in case of incorrect operation the machine will go to alarm.

THE CORRECT SEQUENCE OF COMPOSITION OF THE SELECTIONS IS ALREADY SET FROM THE MANUFACTURER, THEREFORE HE RECOMMENDS YOU TO DO NOT MODIFY THE CORRECT SEQUENCE WITHOUT CONSULTING THE MANUFACTURER.

Entering the program through D you will see the sequence of the existing drink codes.

| 11-12-13-14-15-1 |
| Sel. 11 |

The flashing cursor points out the code drink, to move it use the keys A to advance or B to withdraw; contemporarily to the cursor movement, in the underlying line the name of the selection will be visualized related to the code drink.
To modify the parameters of the code drink, press D.

A sequence of numbers will be visualized each of which corresponds to a movement of the machine.

| 01-04-03-08-17-1 |
| PRENDI BICCHIERE |

As for the drinks, the cursor points out the code movement, therefore to move it use the keys A or B; on the underlying line the description of the movement will appear.

Every drink is composed therefore by a sequence of "movements", by a line price and by the menu of its name" MS."

BOILER 1 WORKING

Enable of the boiler 1.

BOILER 2 WORKING

Enable of the boiler 2.

Nota 1: to avoid the blocks in the mixing group, the software controls the powder and water values in the way explained in the diagram.
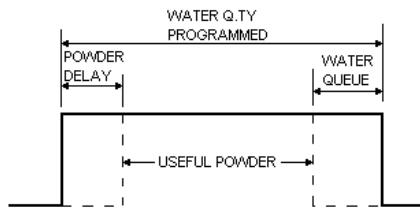
OUTPUT LIST

Nr	DESCRIPTION
0.	Soluble pump
1.	Espresso pump
2.	Espresso group motor
3.	Cup-arm motor
4.	Not used
5.	Grinder motor
6.	ETV espresso
7.	ETV solub. 4
8.	ETV solub. 3
9.	ETV solub. 1 & 2
10.	ETV solub. 5
11.	Stirrer releaser solenoid
12.	Coffee-releaser solenoid
13.	Not used
14.	Not used
15.	Cup-releaser motor
16.	Column-releaser 1 solenoid
17.	Column-releaser 2 solenoid
18.	Not used
19.	Not used
20.	Not used
21.	Not used
22.	ETV water
23.	Not used
24.	Sugar motor
25.	Solub. 1 motor
26.	Solub.2 motor
27.	Solub. 3 motor
28.	Solub. 4 motor
29.	Solub. 5 motor

COUNTERS & AMOUNTS

In this menu it is possible to notice the counters of the various selections and eventually to reset them.

Press D to enter the menu that is composed in the following way:

TOTAL COUNTERS&AMOUNTS

total in normal working of counters and amounts (Pcs.) from the last zero resetting. To reset, press" #" and" 3" to confirm.

TEST MODE: TOTAL COUNTERS&AMOUNTS

total in test working of counters and amounts (Pcs.). To reset, press" #" and" 3" to confirm.

FREE MODE: COUNTERS&AMOUNTS

total in "free test" working of the done tests and of theirs "loss" in relationship to the price of the effected selections. To reset, press" #" and" 3" to confirm.

TOTAL IN PRICE-PERIOD 1

total of the loss and of the counters in the working in period 1 of price. To reset, press" #" and" 3" to confirm.

TOTAL IN PRICE-PERIOD 2

total of the loss and of the counters in the working in period 2 of price. To reset, press" #" and" 3" to confirm.

RESET COUNTERS?

Zero resetting of all the counters. Press "1" to reset or "3" to cancel.

EVENTS

In this menu it is possible to notice the last 100 events of the machine.
Entering the menu with D the following data will be visualized:

```
DATA: time & date
ID:XX   RESULT  POS
```

In the line of the date, you see the time and date of the event.
ID indicates the kind of event, that can be a code drink or an internal operation of the machine (see chart).
RESULT indicates if the event has gone to good end (GOOD) or an error is occurred (Ennn) where nnn corresponds to a number that the type of error represents (see chart).
POS indicates the position of the event (from 1 to 100).
To scroll the various events use the keys A and B.

Internal operation codes

94 espresso group positioning
95 cups searching
96 filter counter reached
97 boiler 1 refilling
98 boiler 2 refilling
99 washing

Error codes

E100	arm-cup positioning in "sugar position"
E101	arm-cup positioning in "cup position"
E102	arm-cup positioning in "supplying position"
E103	espresso group positioning in "normal position"
E104	espresso group positioning in "supply position"
E105	espresso supplying
E106	soluble supplying
E107	coffee grinding (grinder 1)
E108	coffee grinding (grinder 2)
E109	sequence file
E110	cup releasing
E111	lack of cups
E112	lack of water

SET FILTER COUNTER
>   Counter for the limestone filter substitution. Once reached, the machine will show "*" on display but it will continue to work (see also at page 27).

SET NUMBER OF COFFEE GROUNDS
>   Counter for coffee grounds emptying. Once reached, the machine will show "EMPTY GROUNDS" and it will stop (see also at page 27).

REGULAR MODE COUNTERS&AMOUNTS
>   Regular mode counter. To reset it, press # and D.

TEST MODE COUNTERS&AMOUNTS
>   Test mode working counter. To reset it, press # and D.

FREE MODE COUNTERS&AMOUNTS
>   Free mode working counter. To reset it, press # and D.

TOTAL IN PRICE-PERIOD 1
>   Price-period 1 counter. To reset it, press "#" and D.

TOTAL IN PRICE-PERIOD 2
>   Price-period 2 counter. To reset it, press "#" e D.

RESET COUNTERS&AMOUNTS
>   Reset of all the counters above. Press "1" to confirm or "3" to cancel.

ENABLE SLAVE MACHINE
>   Enable the "slave" machine.

ENABLE TEMPERAT.ON DISPLAY:
>   Visualization of the boiler temperature on display .

SERIAL NUMBER
>   Set the serial number of the machine.

CAUTION ! OUTPUT TEST !:
>   Test of all the electrical output of the electronic board (see the LIST at page 22). Choose the output with A or B; to supply it, press D.

TYPE OF MACHINE
>   Set-up of the model of the machine.

OPTIONS: LEVEL 2 (manager- technician)

After have inserted the correct password, that it initially is "222", you will enter the following menu:

MODIFY PASSWORD LEVEL 1
>   Insert the new password and press D to confirm.

MODIFY PASSWORD LEVEL 2
>   Insert the new password and press D to confirm.

SET DRINK
>   See "set drinks" chapter at page 23.

LOAD DEFAULT DATA
>   Original data loading. To confirm press "1" while to cancel press "3".

SET LANGUAGE
>   Language of all the message .

SET DELAY POWDER
>   Set the delay between the water and the powder, measured in cc if the movement is "volumetric" or in tenth of seconds if it is by time (see note 1).

SET WATER QUEUE
>   Reserve of water without powder at the end of the selection, measured in cc if the movement is "volumetric" or in tenth of seconds if it is by time (see note 1).

SET PAUSE ESPRESSO GROUP
>   Time for coffee grounds drying, measured in tenth of seconds.

ENABLE BITTER DRINK AS DEFAULT
>   Kind of sugar / no sugar drink.
>
>   If ENABLE, the drink will be without sugar and the buttons A and B will have the function of "sweet" and "extra sweet" respectively.
>
>   If DISABLED, the drink will be with sugar and the buttons A and B will have the function of "no sugar" and "extra sweet" respectively.

E113	boiler 1 temperature
E114	boiler 2 temperature
E115	coffee grounds counter
E116	boiler 1 off by timer
E117	boiler 2 off by timer
E118	boiler 1 heating
E119	"executive or MDB" communication during working
E120	"executive or MDB" communication at power on
E121	boiler 2 heating

MAIN MENU

To access this menu, keep pressed the button PROG <u>for 5 seconds</u>.

The menu is composed by the followings programs:

SET TIME
> Setting of the clock and the schedules of some functions.

PAYMENT SYSTEM
> Setting of the system of payment and its options.

SET TEMPERATURE
> Setting of temperatures and other functions on the boilers.

OPTIONS: INSERT PASSWORD
> Entry to the options related to the levels of programming: operator and technician or manager.

OPTIONS: LEVEL 1 (operator)

After have inserted the correct password, which initially is "111", the following menu will appear:

MODIFY PASSWORD LEVEL 1
> Insert the new password and press D to confirm.

TEST MACHINE MODE
> Set the machine in Test mode working.

FREE MODE
> Set the machine in Free mode working.

SINGLE DRINK COUNTERS&AMOUNTS
> Choose the id drink to analyse with A or B and D to confirm.

> **REGULAR COUNTERS**
> > Regular working counter. To reset it, press "#" and D.
>
> **TEST MODE COUNTERS&AMOUNTS**
> > Test mode working counter. To reset it press "#" and D.
>
> **FREE MODE COUNTERS&AMOUNTS**
> > Free mode working counter. To reset it press "#" and D.

TOTAL IN PRICE-PERIOD 1
> Price-period 1 counter. To reset it, press "#" e D.

TOTAL IN PRICE-PERIOD 2
> Price-period 2 counter. To reset it, press "#" e D.

RESET COUNTERS&AMOUNTS
> Resetting all the counters above. Press "1" to confirm or "3" to cancel.

NOTE: these counters are the same of the "frequent menu" ones (see page 11).

OPTIONS

This menu is constituted by 2 different levels which are protected by a password:

1st level: Operator - dedicated to the operator of the machine
2nd level: Management - dedicated to the technician / manager of the machine

The access to the first level is also possible from the 2nd level.

The machine has 3 kinds of working which have different counters and amounts of selections :

normal: normal working with priced selection
test : working with priced selections but with the money which doesn't go into the coin box (example: the technician has to test the machine and the payment system).
Free test: working with free selections.

Besides, where the price-periods are activated, there are the two counters of selections and amounts.

The counters of every level are independent one with the other, therefore the zero resetting of the counters of a level doesn't influence the counters of the other levels.

SET TIME

To enter this menu, press D:

SET DATE AND HOUR
    Date and clock setting.

TIMER ON/OFF BOILER 1
    Set the period of inactivity of boiler 1.

ENABLE TIMER ON/OFF BOILER 1
    Enable the period of inactivity of boiler 1.

TIMER ON / OFF BOILER 2
    Set the period of inactivity of boiler 2.

ENABLE TIMER ON /OFF BOILER 2
    Enable the period of inactivity of boiler 2

AUTOMATIC WASHING 1
    Set the time for automatic washing cycle 1.

ENABLE AUTOMATIC WASHING 1
    Enable the automatic washing cycle 1.

AUTOMATIC WASHING 2
    Set the time for automatic washing cycle 2.

ENABLE AUTOMATIC WASHING 2
    Enable the automatic washing cycle 1.

To set the times, use the numerical buttons.
To enable the function, press A while to disable it use the button B.
To confirm press D, while to exit press C.
The settings of boiler 1 and 2 work if they are present (make reference to the model of the machine).

PAYMENT SYSTEM

The followings programs compose this menu:

SET COIN VALUE PARALLEL SYSTEM
Setting of the coin values (see note 1).

TIME 1ST PRICE PERIOD
Setting of the period 1 during which you can apply a discount.

1ST PRICE-PERIOD DISCOUNT
Value of discount to apply to the period 1.

TIME 2ND PRICE PERIOD
Setting of the period 2 during which you can apply a discount.

2ND PRICE-PERIOD DISCOUNT
Value of discount to apply to the period 2.

DECIMAL POINT
Setting of the decimal point to be applied coin and prices to the values.

NAME OF CURRENCY
Setting of the currency name.

SINGLE SALE NO CHANGE GIVEN
Setting of the sale without maintenance of the residual credit.

MAXIMUM CHANGE GIVEN
Maximum value of credit to be given (for MDB change-giver systems only).

TYPE OF PAYMENT SYSTEM
Type of payment system used on the machine (see note 2).
After have programmed the type of system of payment, it is necessary to go out of the program with C and switch off the machine.

Note 1: this menu is only valid for parallel selectors.
To memorize the values coin proceed in the following way:
- Set the value of the coin to accept with the numerical buttons
- introduce the coin in the selector
- if accepted, on the display the channel will appear on which is programmed
- press D to confirm the memorization.
- Repeat the procedure for the other coins.

SET TEMPERATURE

The followings programs compose this menu:

SET BOILER 1 TEMPERATURE
Set-up of the boiler 1 temperature.

SET BOILER 2 TEMPERATURE
Set-up of the boiler 2 temperature (if present).

TIME OVERHEATING BOILER 1
After this time of "machine stopped" the boiler 1 is overheated.

SET OVERHEATING BOILER 1
Value of overheating of the boiler 1 (max. 5°C).

TIME OVERHEATING BOILER 2
After this time of "machine stopped" the boiler 2 is overheated.

SET OVERHEATING BOILER 2
Value of overheating of the boiler 2.

TIME FILLING UP BOILER 1
Every "minute set" the pump refills the boiler 1 to keep the maximum level.

SET FILLING UP BOILER 1
Duration of refilling for boiler 1.

TIME FILLING UP BOILER 2
Every "minute set" the pump refills the boiler 2 to keep the maximum level.

SET FILLING UP BOILER 2
Duration of refilling for boiler 2.

If the boiler 2 is not available, the relative settings will not work.